



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্ব দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

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No. 71 Dispur, Thursday, 15th February, 2024, 26th Magha, 1945 (S. E.)

GOVERNMENT OF ASSAM

ORDERS BY THE GOVERNOR

DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 16th January, 2024

DoHUA EcF No.393727/2024/53.- In exercise of the powers conferred by the Sub-Section (2) and (3) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) read with Rule 6 of the Assam Town and Country Planning (Publication of Master Plan and Zoning Regulation) Rules, 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Final Master plan for Lakhipur.

NOTICE FOR PUBLICATION OF THE FINAL MASTER PLAN FOR LAKHIPUR

1. It is notified that the Final Master Plan for Lakhipur is prepared by the Directorate of Town & Country Planning, Government of Assam and adopted by the State Government under sub section (2) and (3) of Section 10 of the Assam Town and Country Planning Act, 1959 (as amended) read with Section 6 of the Assam Town and Country Planning (Amendment) Rule, 1962 for the area described in the schedule below, is hereby published.
2. The Final Master plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of the Director, Town & Country Planning, Dispur, Guwahati-6, Deputy Director, Town & Country Planning, District Office- Silchar, office of the Chairman, Lakhipur Municipal Board and Lakhipur Revenue Circle Office. Copies of the Final Master Plan is also available in the office of the Director, Town & Country Planning, Dispur, Guwahati-6 and Deputy Director, Town & Country Planning, District Office- Silchar for sale on payment.

SCHEDULE

NAME OF THE MASTER PLAN AREA : **LAKHIPUR**
 DISTRICT : **CACHAR**
 SUB-DIVISION : **LAKHIPUR**
 MUNICIPAL AREA : **7.5 SQKM**
 MASTER PLAN AREA : **38.04 SQ.KM**

Parganas and Mouza

Pargana	Name of Mouza
Lakhipur	1. Chiripar Pt. - I 2. Chiripar Pt. - II 3. Nij Lakhipur pt. - I 4. Nij Lakhipur pt. - II 5. Nij Lakhipur pt. - III 6. Nayagram 7. Fulertal 8. Digar Fulertal pt. -I 9. Digar Fulertal pt. -II 10. Digar Fulertal pt. -III 11. Lalangkita Labac pt. - I 12. Lalangkita Labac pt. - II 13. Lalangkita Labac pt. - III 14. Lalang kitta Labac pt. - V 15. Lalang - I 16. Lalang - II
Rupaibali	17. Binnakandi - I 18. Binnakandi - II
Bhuban Hill	19. Dilkush Grant

Boundaries of Master Plan Area:

North : Alipur pt II, Sibpur Pt I, II, III, Mahalthal, Kamranga Bond pt II
 South : Singerbandh Pt IV & V, Putikhal, Roberpur, Dakhin Fulertol
 East : Natun Fulertol, Chalitartol, Nur Nagar
 West : Chandrapur Pt III, Singerbandh Pt III

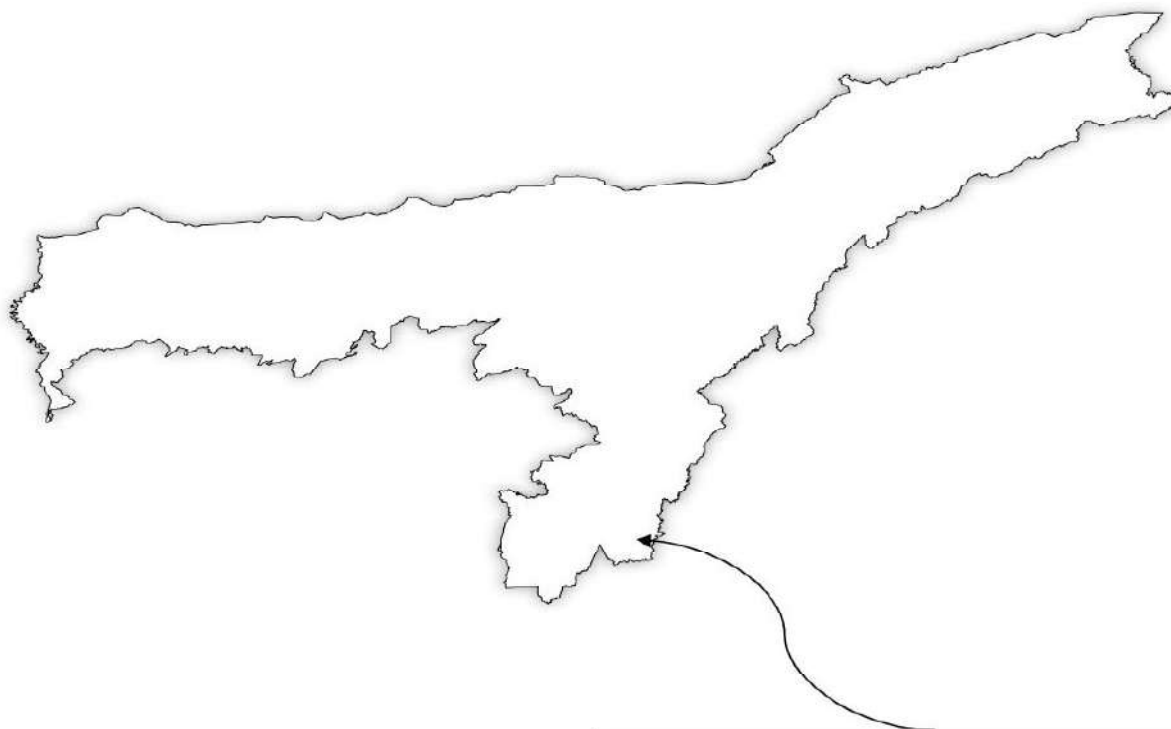
KAVITHA PADMANABHAN,
 Commissioner & Secretary to the Government of Assam,
 Department of Housing and Urban Affairs,
 Dispur, Guwahati-6.

CHAPTER – I

INTRODUCTION TO MASTER PLAN AREA

1.1 Location, regional setting, brief history of the town and surrounding:

Location: Lakhipur town is located at 24°48' N latitude and 93°02' E longitude. It is located 29 KMs towards East from district head quarters Silchar. The town is situated at a distance of 383 Km South East of Dispur, Guwahati.



Location of Lakhipur (C) in Assam

Regional setting: Lakhipur is the head quarter of Lakhipur Sub-division under Cachar district in Assam. It is flanked by river Barak on the South and river Chiri on the North. The master plan area consists of 19 (Nineteen) revenue villages which also include Lakhipur town having an area of 7.5 Sq. Km. The total master plan area is 38.04 Sq. Km including both urban and rural areas.

History of the town and its surrounding: An ancient town of the erstwhile Kochari kingdom, Lakhipur, since long, was a business centre of Cachar, Manipur, Lusai Hills (Mizoram) and Burma (Myanmar) in the pre-independence era. Reputation of Lakhipur had stretched up to West Bengal and Orissa in the Indian mainland and even to China. During the 1st Burmese War (1824-1826), Captain Pamberton established a Border outpost around which the present town is situated. Lakhipur as the name suggests (Lakhi or Lakshmi- the Goddess of wealth and pur- town) was once a thriving centre for business and commerce and the biggest Pargana of Cachar with an area of 105 square miles

consisting of 92 Talukas. Revenue generated by this Pargana was around Rs. 30,200.00 during 1826. Lakhipur's lifeline was its hilly road, which links Silchar, the district headquarters of Cachar with the state of Manipur. During Huensang's visit to India, this was a major route for India's business with Burma and China. Chaitanya Mahaprabhu's disciple Santidev Goswami came from Nabadweep in West Bengal and went to Manipur via this route for spreading the Vaisnavite movement. During 1871-1872, the Commissioner of Cachar district John Edgar had suggested to the Government of India to construct a road linking Lakhipur with Chattagram in Bengal (now in Bangladesh) and Rangoon in Burma. According to his report, the distance from Lakhipur to the Burmese border was only 192 Kms. This proposal is presently being raised at the government level and is under consideration for incorporation. Indian Steamer Company used to operate steamer services from Kolkata to Lakhipur way back in 1835. Although the town has lost much of its vibrancy and trade and commerce and at present is only a shadow of its glorious past but the town and its suburbs still are an important place for commerce in the district.

1.2 Climate, topography and soil condition :

Climate: Climate of Lakhipur is significant for excessive humidity and being shut in by ranges of hills on North, East and South. Temperature during summer season is quite high. During rainy season, the air is surcharged with moisture and rainfall is extremely heavy. The monsoon season has begun in the month of May and it continues till October. The winter is not as cold as that of Brahmaputra valley.

Topography: The land has uneven topography with full of hills, plains and rivers. The river Barak flows westward from Lakhipur through the Cachar Plains region of Assam over a river length of approximately 130 kilometers to enter Bangladesh near Bhanga.

Soil condition: Like the soil of the district, the soil of Lakhipur is clayey loam, alluvial and red alluvial. Lakhipur is the richest pine - apple growing area in the country on the bank of Barak.

1.3 City influence and its characteristics including settlement pattern, rural urban scenario, history of the physical growth and expansion of town :

(A) City influence and its characteristics including settlement pattern:

Lakhipur is a small city of the state in terms of population and municipal area. In early years, it was mainly a trade and commerce centre, but at present, it is also an administrative centre being the headquarters of Lakhipur Sub-division of Cachar district. It has to cater the official needs of people of far flung localities of the sub-division covering four Development Blocks.

In respect of settlement pattern in the town, it may be mentioned that settlement has developed mainly around Lakhipur Municipal Board and Lakhipur Development Block, Fulertol, a growing commercial area of the town. People belonging to Bengali, Manipuri and Tribal (particularly Hmar) communities are the inhabitants of Lakhipur town.

(a) Rural-urban scenario:

Lakhipur master plan area including Lakhipur town shows rural dominance till now because the urban centre is still passing through slow rate of transformation from rural to urban. Economic activities in the town are sluggish and consequently it could not support or justify investment in major urban infrastructure or large scale urban project. The rate of urbanization of Lakhipur town is only 0.60%. This figure indicates how rural dominant character is prevailing in the area.

(b) History of the physical growth and expansion of town:

Lakhipur Town Committee was constituted in 1960 with 4 wards. These wards were revised to 10 wards in 1994 and further upgraded to 12 wards in 1999. The urban local body was given the status of Municipal Board vide Government of Assam notification number UDD(M)250/79/342 dated 21st July 2007.

In course of time, Lakhipur Sub-Division was created with its headquarters at Lakhipur in the year 1992 vide Govt. Notification No. GAG(B). 26/91/36 dtd. 23.03.1992 comprising of 212 Nos. of revenue villages. The Sub-Division has four Development Blocks and also four ICDS Projects, one Circle Office, two Police Stations and two Police Outposts.

The creation of Lakhipur Sub-Division raised the importance of Lakhipur town as both commercial and administrative unit. This has induced the people of surrounding rural areas to migrate and settle in the town. As a result, the expansion of town took place – a meagre sized town composed of only one revenue village, viz, Nij Lakhipur Part I has evolved to the present size of 7.5 Sq Km covering whole and portions of five revenue villages – Niz Lakhipur Part I & II, Digor Fulertol Part I & II and Fulertol. The town has been maintaining a unique unity in diversity although it has a population belonging to different caste, language, religion and culture.

(c) Need for Master Plan:

Master plan is a long term planning, generally for 20 years. It is also a comprehensive planning for service area as per likely spread of city in next 20 years. It describes all works required in next 20 years in phased manner. The designs and estimates are prepared approximately. It finalizes some of the main parameters so that advance action can be taken. Then detailed project report (DPR) is prepared for phase 1 works. At present the general practice is to prepare master plan for urban towns; however these master plans address town planning aspects including land use but does not include Infrastructure master plan for each sector.

Planning is a continuous process. The master plan or outline development plan is prepared to evolve a scientific and rational policy for urban development. The plan guides the future course of development for providing better environment of the people living in a geographical area.

The Master Plan is being envisaged as Outline Development Plan and thus the plan period has been kept moderate like 10 to 12 years maintaining the characteristics of an outline development plan. The period of Lakhipur master plan is considered up to 2041. In normal course, it should be revised after 2041 and if necessity demands it may be revised even earlier.

CHAPTER- 2 **DEMOGRAPHY**

2.1 Total Population, Male/Female Population, Population growth rate, population density, sex ratio, literacy (Total, Male Female rate), working population and non-working population, SC- ST population:

(a) Population:

As per the census report, 2011, the population of town is 10,277. The percentage decadal growth for 2001-2011 was 4.86% in town area. On graphical plotting of population of past decades since 2001, the population of Lakhipur town may be projected at 15,187 in the year 2021, 22,442 in the year 2031 and 29954 in the year 2041. The population in master plan area was increased from 25222 persons in 1991 to 33753 persons in 2001. As per data provided by office of the Deputy Director, Economics and Statistics, Silchar, the population in the master plan area was 41913 in 2011 and is projected to increase to 66,952* persons in 2041. The decadal variation of population from 2001 to 2011 is 24.17%.

(*Using Arithmetic Measure to calculate population projection which seems more reasonable as compared to other two methods.)

(b) Male/Female population, population growth rate, population density, sex ratio, literacy:

Out of total population of 10277 persons in Lakhipur town, male population is 5168 and female population is 5109. Population growth rate of the town is 11.03%. Density of population is 1370 persons per Sq Km. within Lakhipur Municipal Board area, Female Sex Ratio is of 989 against state average of 958. Literacy rate of Lakhipur city is 90.97 % higher than state average of 72.19 %. Simultaneously, out of total population of 41913 persons in Lakhipur master plan area, male population is 20895 and female population is 21018 in 2011. The growth rate of population of Lakhipur master plan area is 19.47% in 2001-2011 decade. Density of population is 919 persons per Sqkm (2011). The sex ratio and literacy percentage are 1006 female against 1000 male and 87.8% respectively.

(c) Working and non-working population, SC/ST population:

Out of total population of 41,913 persons in Lakhipur master plan area, the number of working population is 14887 only and the rest is non-working. The population of SC is 2121 and that of ST is 129.

2.2 Migration of population:

During the decade- 2001-2011, a section of people living in the surrounding villages have migrated to the Lakhipur town area in search of their livelihood. However, the figure of migration is a meagre one due to the existence of a greater urban area named Silchar, the district headquarters, having more opportunity of employment and tempting the unemployed people of the rural areas of Cachar district. The distance of Lakhipur from Silchar town is only 29 kilometres.

2.3 Household density and size:

Household density is mostly thin and scatteredly distributed over the master plan area. In general household size varies from 4 to 9 members and the average no is 5.

2.4 Population projection up to 2041:

Population projection up to 2041 is shown in the table mentioned below:

Arithmetic method:

This method is suitable for large and old city with considerable development. If it is used for small, average or comparatively new cities, it will give lower population estimate than actual value. In this method, the average increase in population per decade is calculated from the past census reports. This increase is added to the present population to find out the population of the next decade. Thus, it is assumed that the population is increasing at constant rate.

$$P_t = P_o + mt \text{ where } m = \text{population growth rate}$$

P_t = Population at time t.

P_o = Initial Population

t = time in decades

Year	2021	2031	2041
Lakhipur Master Plan area	50,260 persons	58,606 persons	66,952 persons

Population Projection Table No-1

Geometric Method:

In this method, the percentage increase in population from decade to decade is assumed to remain constant. Geometric mean increase is used to find out the future increment in population. Since this method gives higher values and hence should be applied for a new industrial town at the beginning of development for only few decade.

The population at the end of nth decade ' P_n ' can be estimated as:

$$P_n = P (1 + IG/100)^n$$

Where, IG = geometric mean (%)

• P = Present population

• n = no. of decades.

Year	2021	2031	2041
Lakhipur Master Plan area	53,629 persons	68,961 persons	88,678 persons

Population Projection Table No-2

Incremental Increase Method:

This method is a modification of arithmetical increase method and is suitable for an average size town under normal conditions where growth rate is found to be in increasing order. While adopting this method the increase in increment is considered for calculating future population. The incremental increase is determined for each decade from the past population and the average value is added to the present population along with the average rate of increase.

Population after n^{th} decade is $P_n = P + n.X + \{n + (n+1)/2\}.Y$

Where, P_n = Population after n^{th} decade

X = average increase

Y = Incremental increase

Year	2021	2031	2041
Lakhipur Master Plan area	48,034 persons	54,896 persons	61,387 persons

Population Projection Table No-3

Population Projection for 2041:

Population projection has been done using all the three methods. It is important to note that none of the above-mentioned methods is empirical, and they are based on probability. Out of these methods, Arithmetic Method has been considered suitable for Lakhipur Master Plan Area. 1991, 2001 and 2011 figures are from the Census of India and 2021, 2031 & 2041 figures are estimated.

Year	Lakhipur* Town	Lakhipur Master Plan
1991	-	25222
2001	9802	33753
2011	10277	41913
2021	15,187	50260
2031	22,442	58606
2041	29,954	66952

*Projection through using graphical method.

CHAPTER -3**ECONOMIC BASE AND EMPLOYMENT****Sectors of Economy:**

The economy is categorized under the main three sectors as Primary, Secondary and Tertiary. If we talk about Lakhipur particularly the Primary sector comprises agriculture, horticulture and forestry, sericulture & fishing, mining and quarrying, animal husbandry and dairy as subsidiary industries. Manufacturing, household Industries and construction industry are considered in Secondary sector where as trade, tourism, hotels & restaurants, transport, storage & communication, banking, public administration, and informal sector are part of Tertiary sector.

3.1 Formal sector:

Lakhipur town being, a remote and small urban unit, does not have any remarkable employment in formal sector. It has a population of 1985 persons engaged in formal sector.

3.2 Informal sector:

The town as well as the adjoining rural areas included in the Lakhipur master plan area has a very poor enrollment of only 129 persons in informal sector.

3.3 Occupational pattern:

Major share of occupation is in tertiary sector in the planning area. The working class in the town is mostly in service sector and a portion in trade and commerce. However around 60% of working population in rural areas of planning area are in agriculture and allied activities.

Distributions of Main Workers, Marginal Workers, Non Workers, as per 2011 census within the town are as follows –

Sl. No.	Workers	Population	Male	Female
1	Total workers	3706	2794	912
2	Main Workers	2882	2385	497
3	Marginal Workers	824	409	415
4	Non Workers	6571	2374	4197
5	Agricultural Labours	202	145	57
6	Household Industries Workers	108	56	52
7	Other Workers	2241	1909	332

Source : Office of the Deputy Director of Economics and Statistics, Silchar

CHAPTER -4 **HOUSING AND SHELTER**

4.1 Housing scenario:

Other than road side well-built Govt. offices complexes in the Lakhipur town area including Lakhipur Municipal Board, the pattern of housing in the surrounding villages included in the master plan is a mixed one. 20% of houses are RCC building, 40% is Assam type building though they are very old ones and the rest 40% huts and poor dilapidated housing.

Residential use is the major land use occupying about 21% of planning area. The residential areas are scattered in patches all over the master plan area except extreme northern part of the planning area. The narrow roads, inadequate drainage, improper setback within the plot area boundary form the scenario of infrastructure in residential areas.

4.2 Housing supply mechanism (self/private builders & developers/Govt. housing schemes):

There is almost absence of government housing colony. Group housing and apartment housing are not yet common. Most of the houses are with individual private ownership and rented tenants. Housing supply is less than the demand leading to few informal slums and kutcha housing with insanitary condition.

4.3 Housing condition, Type of Structure, Household facilities available, availability of Kitchen, Latrine, Bathroom, Drainage:

Shelter is one of the basic human needs and its conditions greatly affect the character of human life. It is one of the burning problems of the present day's urban areas. Though in Lakhipur planning area shortage of housing is not the major problem but the type of house, housing condition, basic need related to housing like drinking water, sanitation, garbage disposal etc. do not conform to norms. There is total absence of neighbourhood structure in the planning area.

4.4 Slums-squatters and informal housing share, including list of all slums and informal housing localities in master plan area and marking location on map:

Informal slum housing in existence within municipal area are as follows:

Ward no.1.... scattered in patches....around 60 households.

Ward no.2.....scattered in patches....around 50 households

Ward no.3..... scattered in patches.... around 45 households.

4.5 Housing stock, shortage and need assessment:

At present there are total 3150 number of registered houses within Municipal area. Considering the existence of informal slum pockets with kutcha houses in uninhabitable physical environment, the tenants, the squatters and the congested pucca houses, the shortage of pucca houses within master plan area including municipal area will be around 1400(U)+1600(R) i.e. approx 3000 numbers.

The shortages of pucca houses in municipal area are being covered through BLC component of PMAY(Urban). At present the demand for PMAY houses in municipal area is 1400 (approx).

In order to plan Affordable Housing project for urban poor, an area of 179 Bighas has been delineated in the residential zone in village Lalang Kita Labac Part I. It is proposed to implement TDR (Transferable Development Right) policy in pooling private land from owner and private developer. The proposed widened road to be used for effecting TDR policy.

CHAPTER 5 **TRANSPORTATION**

5.1 Network of roads (NH, SH, District roads etc) with average road width:

The NH 37 is the only national highway passing through the Lakhipur town and reaches Imphal, the capital of Manipur. The average width of the NH is about 12 metres, but the width decreases while the road goes through the town. There is no State Highway with the greater Lakhipur area. A PWD road is there connecting Fulertol, an important commercial locality within Lakhipur town, with Chiripar Part I, and the boundary revenue village of Lakhipur Master Plan area.

The existing roads in the master plan area are as follows-

S.No.	ROAD NAME	LENGTH (KM)	ROW (M)
1	NH37 (PALLARBOND MARKET TO NEHRU STATUE)	9.86	12

2	NH37 (NEHRU STATUE TO FULERTOL POINT)	4.62	12
3	NH37 (FULERTOL POINT TO NEW DUMPING GROUND)	4.47	12
4	BYPASS ROAD	1.27	12
5	JOYPUR ROAD	2.61	10
6	PALLARBOND NUNGPHOW ROAD	0.84	9
7	OLD SILCHAR ROAD (PALLARBOND NUNGPHOW ROAD TO NH37)	9.3	9
8	FULERTOL BRIDGE ROAD (NH37 TO DILKHUSH ROAD)	1.11	7
9	FULERTOL BRIDGE ROAD (DILKHUSH ROAD TO BINNAKANDI GHAT INTERSECTION)	1.46	7
10	BINNAKANDI SILCHAR ROAD	1.22	7
11	STATION ROAD	1.27	6
12	COLLEGE ROAD	1.21	4
13	SHAHID NANDA CHAND ROAD	1.38	4

Source: Data as provided by Consultant.

SL. No.	Name of Road	Length (KM)	Width (M)	Surface Type	Remarks
1	ROAD FROM NEHRU COLLEGE TO LABOCPAR PT-II	0.4	7	Surfaced	
2	ROAD FROM LAKHIPUR TO CHIRIPAR THROUGH CHAPOW ROAD	1.7	5	Unsurfaced	
3	ROAD FROM GOVINDNAGAR ROAD TO LABOCPAR PT-IV	2.25	4.8	Unsurfaced	
4	NH 37 TO DIGOR FULERTOL	2.4	6.5	Surfaced	
5	NH 37 TO FULERTAL HMERKULIN	3.12	6	Surfaced	
6	NH 37 AT SIBPUR TO LAKHIPUR	4.54	7	Surfaced	
7	UJJAN TARAPUR VIA KANGULI RAJARGRAM AND	5.7	5	Surfaced	
8	NH 37 TO NAGAPUNJEE VIA CHAPROW	2.6	6	Surfaced	
9	ROAD FROM NH53 NEAR PAILAPOOL LC TO SAHID ROAD	2.78	5	Unsurfaced	
10	KANGALI BASTI AT NH 53 VIA SRIBAR RAILWAY STATION TO CHANDRAPUR	2.35	5	Unsurfaced	Road is taken up under MMPNA for the year 2022-23.
11	NH 37 TO ALNEY TE VIA CHAUBARI	4.33	6	Surfaced	
12	OLD LAKHIPUR SILCHAR ROAD (PALLORBND TO FULERTOL)	6.51	7.5	Surfaced	
13	ROAD FROM SRIBAR RAILWAY STATION APPROACH ROAD	0.46	5	Unsurfaced	
14	ROAD FRIM OLD LAKHIPUR ROAD AT CHIRPAR I TO CHIRIPAR II	1.32	4.5	Unsurfaced	
15	ROAD FROM 1ST KM OF CHAPROW ROAD TO BOGLAPAR	0.55	5	Unsurfaced	
16	ROAD FRIM CHAPROW ROAD TO LRA ROAD NEAR FULERTOL BYEPASS	1.95	4	Unsurfaced	
17	ROAD FROM L026 TO CAMP ROAD	0.6	5	Unsurfaced	
18	ROAD FROM HMARKULIN DIGAR FULEORTOL ROAD TO GOVINDNAGAR	1.05	4.75	Unsurfaced	
19	ROAD FROM OLD ALIGNEMENT NH 53 AT HMARKULIN DIGAR FULEORTOL	1.8	5	Unsurfaced	

Source: Data as provided by PWRD, Lakhipur

5.2 Overview of critical roads (e.g. Road connecting major roads) and their improvement:

A road named College Road connects PWD road near Lakhipur weekly market, with NH 37 near the bridge over the river Chiri within the boundary of the master plan area. The improvement of this connecting road will benefit the people of Lakhipur town and will lessen the traffic congestion in town area.

5.3 Bus transport terminals, bus terminus, bus parking bays, major bus stops, on-street parking areas and infrastructure issues:

There is a bus parking bays near the weekly market at Lakhipur town within the master plan area. There is an organised bus terminus at Nayagram area constructed under IDSMT scheme of Lakhipur town. The major bus stop and on-street parking are in front of the office of the Lakhipur Municipal Board on PWD road and at Fulertol on NH 37.

5.4 Freight zones and Logistics, Truck terminal, loading/unloading areas, warehousing, Feeder transport services:

There is no any specific area fixed for truck terminal, loading and unloading purpose/warehousing/feeder transport services as the town is small one with moderate growth of trade and commerce in the town. The loading and unloading activities are generally undertaken in front of some private warehouses within Lakhipur town area.

5.5 Footpaths (min. 2 mtr wide) and Bicycle tracks:

There is no footpath with a width of 2 metre within the master plan area. Also the bicycle track is yet to be provided in the roads of Lakhipur urban area.

5.6. Parking:

Existing on-street and proposed for major commercial, institutional areas and transit areas like Bus stations and ferry stops etc. A parking bay has been proposed within the master plan area in Chiripar part I.

5.7 Areas with major traffic congestion and parking issues, accident prone area:

The major traffic congestion and accident prone area is Fulertol at NH & PWD road junction.

5.8 Improvement of Rotary and Junctions:

A rotary may be constructed at Fulertol at NH & PWD road junction. Seven number of important Road junctions have been identified and physical features have been surveyed. (Shown in Circulation Map – 2041) These junctions are-

1. Fulertol Lakhipur Point (NII)
2. Lakhipur College Road Point
3. Rotary & Junction Pailapool Pool.
4. Junction New Bridge Point at Binakandi
5. Bypass Point near Fulertol
6. Binakandi Silchar Road Point
7. Silchar Road to Fulertol Barak Bridge

5.9 Street lighting and proposed improvement plan:

Street lights are installed in normal lamp post of APDCL in municipal area. Maintenance is done by Municipal Board and energy bill is also paid by Municipal Board. It has been proposed to shift the lamp posts along centre line of the road for all major roads with considerable width. The durable and low consumption lamp set are now being sponsored to urban local bodies and rural local bodies by the concerned department of government of Assam

5.10 Signage, availability and requirements:

There is no signage in the important localities and roads of the town. All the important roads are required to have signage.

5.11 Major Proposals:

Few connecting town roads linking the missing chain have been proposed within the Master plan area. The proposal has been shown in the proposed circulation plan. Linking the sub arterial roads with main arterial roads were also proposed in the circulation plan. A parking bay has been proposed within the master plan area in Chiripar part I.

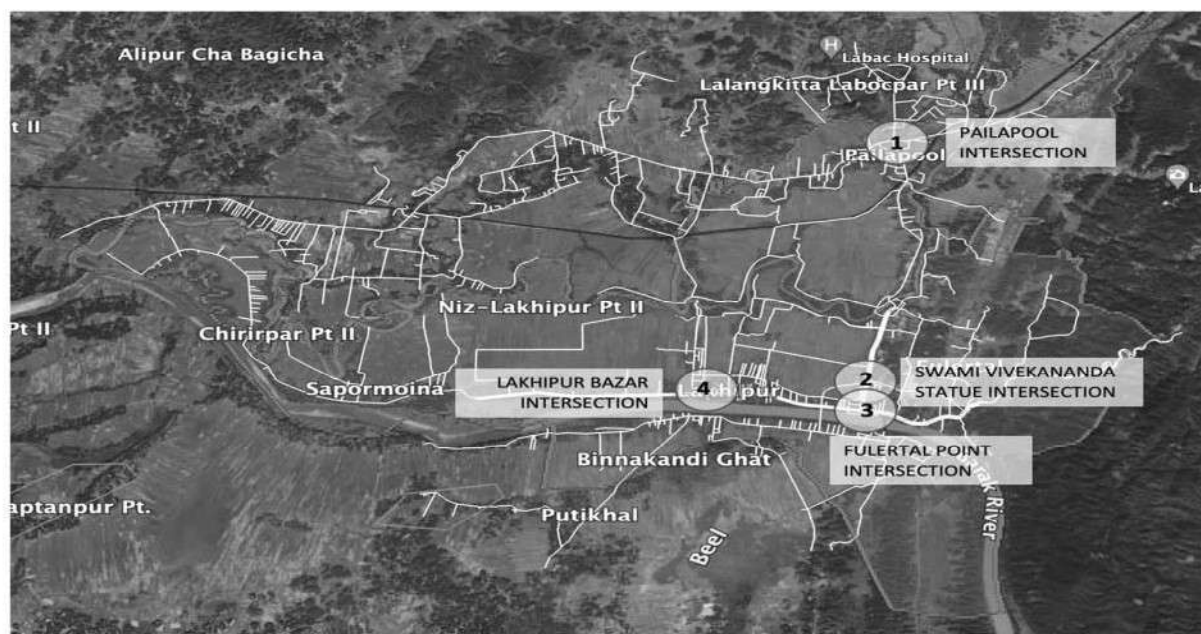
In this Master plan, it is proposed to have minimum width of lanes in commercial zone as 4.2 mts and in residential zone as 3.6 mts.

5.12 Traffic Survey and Schedule:

Traffic counts were undertaken for all the 14 roads converging at /leading away from the intersection. These intersections and the roads are:

1. Pailapool intersection	3. Fulertol Point intersection
1.1. Imphal-Silchar	3.1. Fulertol-Manipur
1.2. Dewan-Labocpar	3.2. Fulertol-Lakhipur
1.3. Pailapool-Rajabazar	3.3. Fulertol-Silchar
1.4. Pailapool-Silchar Hospital	
2. Swami Vivekananda Statue intersection	4. Lakhipur Bazar intersection
2.1. Statur-Binnakandi	4.1. Bazar-Puranagram
2.2. Statue-Fulertol Point	4.2. Bazar-Fulertol
2.3. Statue-Silchar	4.3. Bazar-Ferry Ghat

Figure 3: Lakhipur Traffic Survey Locations



Traffic Survey Locations, Dates & Time Intervals

SURVEY LOCATION	DATE	TIME		SURVEY LOCATION	DATE	TIME	
1. Pailapool (all roads)	Thursday 22/09/22	Morning (9:30am - 9:45am)	Evening (4:45pm - 5:00pm)	3. Fulertol point (all roads)	Thursday 22/09/22	Morning (9:15am - 9:30am)	Evening (4:45pm - 5:00pm)
	Friday 23/09/22	Morning (10:20am - 10:35am)	Evening (4:30pm - 4:45pm)		Friday 23/09/22	Morning (9:15am - 9:30am)	Evening (4:45pm - 5:00pm)
	Sunday 25/09/22	Morning (9:45am - 10:00am)	Evening (4:50pm - 5:05pm)		Sunday 25/09/22	Morning (9:45am - 10:00am)	Evening (4:05pm - 4:20pm)
2. Swami Vivekanand Statue (all roads)	Thursday 22/09/22	Morning (9:15am - 9:30am)	Evening (4:45pm - 5:00pm)	4. Lakhipur Bazaar (all roads)	Thursday 22/09/22	Morning (9:45am - 10:00am)	Evening (4:15pm - 4:30pm)
	Friday 23/09/22	Morning (9:15am - 9:30am)	Evening (4:45pm - 5:00pm)		Friday 23/09/22	Morning (9:35am - 9:50am)	Evening (4:15pm - 4:30pm)
	Sunday 25/09/22	Morning (9:45am - 10:00am)	Evening (4:20pm - 4:35pm)		Sunday 25/09/22	Morning (9:00am - 9:15am)	Evening (4:30pm - 4:45pm)

For the traffic counts, the Manual Method has been adopted. Firstly, video capture via Drones (UAVs) was done to collect traffic volume data. Data was then recorded on data sheets (data recorded with tick mark on a pre-prepared field form).

The modes of transport counted include Cycle, 2-Wheeler, 3-Wheeler, 4-Wheeler, Bus, LCV and IICV. The following tables show the peak hour traffic volume at the 4 intersections (114 locations).

1. Pailapool Intersection



1.1 Silchar-Imphal Road

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Cycle	81	73	65	77
2-Wheeler	264	272	260	280
3-Wheeler	80	100	80	71
4-Wheeler	105	123	124	101
Bus	4	8	11	8
LCV	32	33	43	48
HCV	9	3	9	16
TOTAL	576	612	592	601

1.2 Dewan-Labocpar

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm)	
	Inbound	Outbound	Inbound	Outbound
Cycle	72	99	73	84
2 Wheeler	259	273	273	231
3 Wheeler	75	105	89	85
4 Wheeler	112	127	144	123
Bus	1	1	0	0
LCV	47	35	48	41
HCV	0	15	19	9
TOTAL	565	655	647	573

1.3 Pailapool-Rajabazar

	Morning Peak (9:30am-10:30am*)		Evening Peak (4:30pm-5:30pm*)	
Mode/Direction	Inbound	Outbound	Inbound	Outbound
Cycle	84	87	108	87
2 Wheeler	248	257	272	275
3 Wheeler	71	88	104	97
4 Wheeler	88	123	109	116
Bus	5	8	5	1
LCV	40	35	23	48
HCV	4	7	1	11
TOTAL	540	604	623	635

1.4 Pailapool-Silchar Hospital

	Morning Peak (9:30am-10:30am*)		Evening Peak (4:30pm-5:30pm*)	
Mode/Direction	Inbound	Outbound	Inbound	Outbound
Cycle	101	63	96	97
2 Wheeler	271	260	281	260
3 Wheeler	109	79	89	80
4 Wheeler	116	119	104	128
Bus	5	4	7	4
LCV	27	52	21	39
HCV	5	15	13	8
TOTAL	635	591	612	616

*Extrapolated from 15 min to 1 hour.

2. Swami Vivekananda Statue Intersection:

2.1 Statue-Binnakandi

Mode/Direction	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Cycle	105	105	72	100
2 Wheeler	184	177	187	165
3 Wheeler	31	35	29	36
4 Wheeler	72	83	89	81
Bus	3	3	1	0
LCV	3	5	7	5
HCV	5	1	5	3
TOTAL	403	409	391	391

2.2 Statue-Fulertol Point

Mode/Direction	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Cycle	83	105	84	99
2 Wheeler	233	221	160	217
3 Wheeler	40	37	33	29
4 Wheeler	83	77	79	87
Bus	9	9	7	5
LCV	3	1	8	3
HCV	4	7	5	8
TOTAL	455	459	376	448

2.3 Statue-Silchar

Mode/Direction	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour	
	Inbound	Outbound	Inbound	Outbound
Cycle	87	76	100	84
2 Wheeler	143	183	211	169

3 Wheeler	40	35	33	32
4 Wheeler	77	72	79	72
Bus	9	8	7	9
LCV	5	7	5	5
HCV	7	5	11	7
TOTAL	368	385	445	379

*Extrapolated from 15 min to 1 hour.

3. Fulertol Point Intersection:



3.1 Fulertol to Manipur Road

Mode/Direction	Morning Peak (9:30am-10:30am*)		Evening Peak (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Cycle	41	59	61	41
2 Wheeler	199	220	213	235
3 Wheeler	56	45	65	61
4 Wheeler	108	140	108	117
Bus	20	16	17	11
LCV	23	25	21	21
HCV	5	3	1	5
TOTAL	452	508	488	492

3.2 Fulertol to Lakhipur

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Mode/Direction				
Cycle	72	40	52	36
2 Wheeler	228	219	199	196
3 Wheeler	77	59	61	67
4 Wheeler	124	80	128	127
Bus	16	16	16	9
LCV	21	15	16	13
HCV	7	4	5	3
TOTAL	545	432	477	451

3.3 Fulertol to Silchar

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Mode/Direction				
Cycle	31	56	59	45
2 Wheeler	217	229	219	211
3 Wheeler	57	77	48	65
4 Wheeler	109	139	113	137
Bus	23	16	13	15
LCV	24	16	19	17
HCV	8	1	4	5
TOTAL	469	535	475	496

*Extrapolated from 15 min to 1 hour.

4. Lakhipur Bazar Intersection:



4.1 Bazar-Puranagram

Mode/Direction	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
	Inbound	Outbound	Inbound	Outbound
Cycle	95	125	96	99
2 Wheeler	179	193	203	227
3 Wheeler	63	61	55	59
4 Wheeler	99	76	91	80
Bus	0	0	0	1
LCV	15	21	12	19
HCV	0	0	0	0
TOTAL	449	477	456	484

4.2 Bazar-Fulertol

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
Mode/Direction	Inbound	Outbound	Inbound	Outbound
Cycle	91	96	93	125
2 Wheeler	237	188	235	221
3 Wheeler	59	61	56	60
4 Wheeler	108	72	96	77
Bus	1	1	1	3
LCV	29	27	19	17
HCV	0	0	0	0
TOTAL	525	445	500	504

4.3 Bazar-Ferry Ghat

	Morning Peak Hour (9:30am-10:30am*)		Evening Peak Hour (4:30pm-5:30pm*)	
Mode/Direction	Inbound	Outbound	Inbound	Outbound
Cycle	48	52	20	27
2 Wheeler	7	69	20	19
3 Wheeler	0	0	0	0
4 Wheeler	0	0	0	0
Bus	0	0	0	0
LCV	0	0	0	0
HCV	0	0	0	0
TOTAL	55	121	40	45

4.4 Bazar-College Road

	Morning Peak Hour		Evening Peak Hour	
	(9:30am-10:30am*)		(4:30pm-5:30pm*)	
Mode/Direction	Inbound	Outbound	Inbound	Outbound
Cycle	85	72	104	108
2 Wheeler	151	168	248	192
3 Wheeler	57	56	60	53
4 Wheeler	104	92	99	103
Bus	0	0	0	0
LCV	13	15	15	11
HCV	0	0	0	0
TOTAL	411	403	525	467

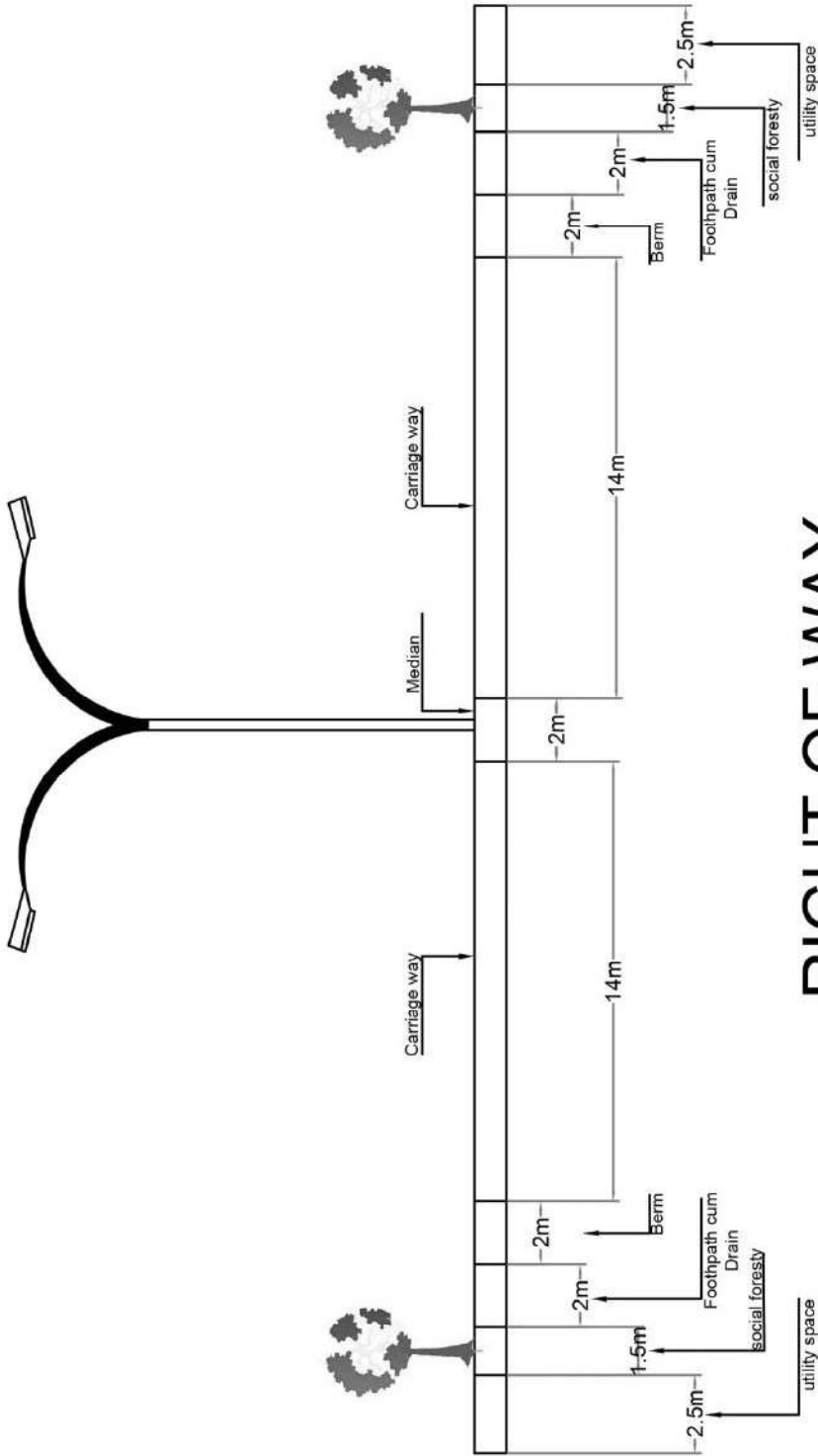
*Extrapolated from 15 min to 1 hour.

Width of Right of Way (ROW) for NH, NH Bypass & MDR have been proposed in Master Plan as below ----

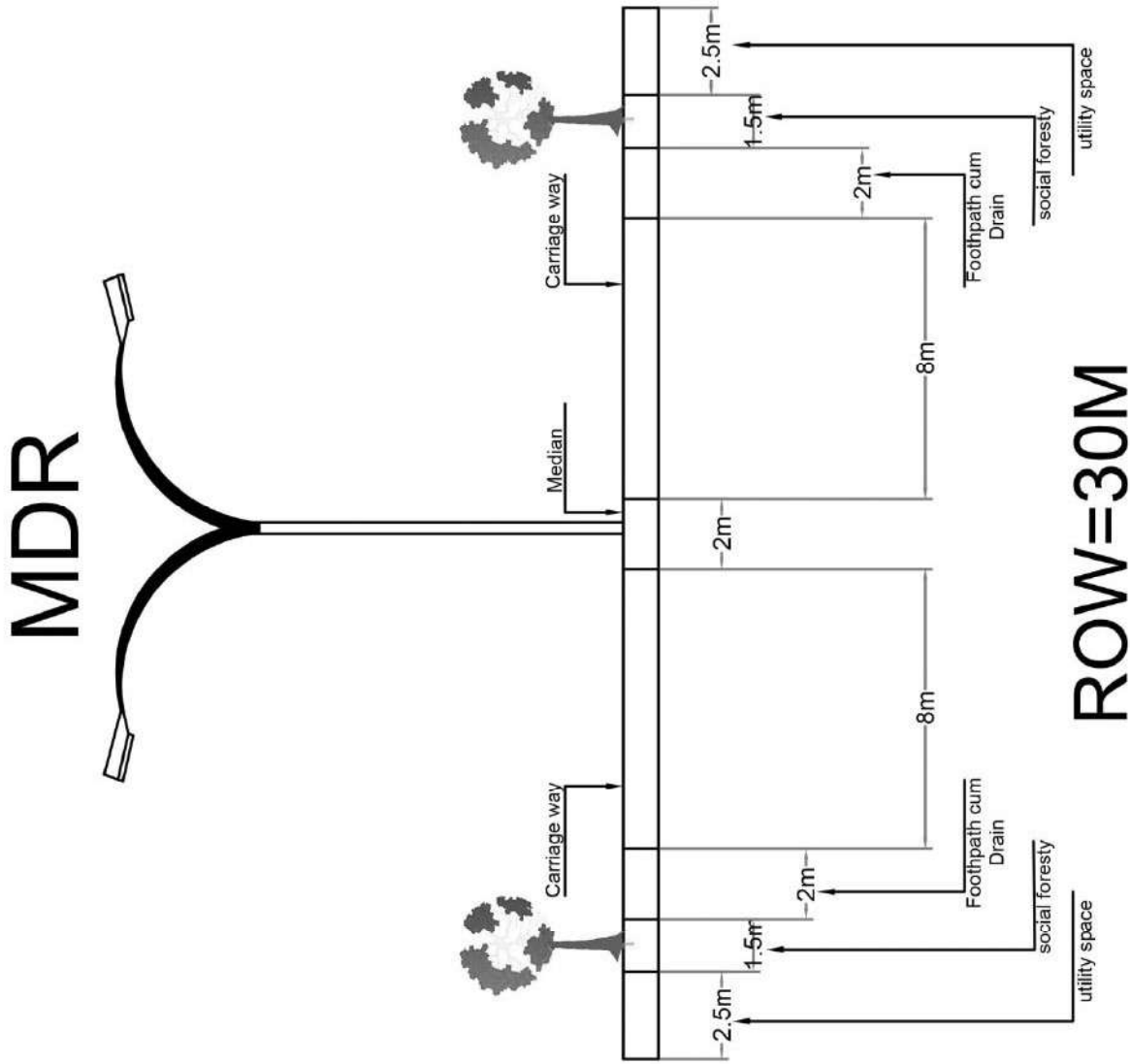
NH/NH Bypass-----50.0 mts

MDR -----30.0 mts.

NATIONAL HIGHWAY/NH BY PASS



RIGHT OF WAY
ROW=46M



CHAPTER 6

INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

6.1 Physical infrastructure:

Overview of each sub-sector current status, issues and proposals in consultation with the Executive Engineer of Drainage & Sewerage Division.

A) *Water supply:* Lakhipur town and its adjoining area have 21 Nos water supply scheme and out of these, two nos. of scheme intake is from Barak River on the south of the town. These are jointly monitored by Public Health Engineering Department, Assam and Lakhipur Municipal Board. Presently it has 7054 household connections and hydrants at various public areas within master plan. Total length of water supply pipeline within the town and proposed master plan area is 1,077 KM. Remaining population of approximately 30000 people of the town and extended sub-urban area do not have any piped water supply facility. In order to meet the shortfall in supply a 2nd phase of this project has been proposed in the utility map (water supply) of this master plan.

Additionally, a fire hydrant is proposing near Market area at Ward no IV area which has been shown in the Utility (Water Supply) Map – 2041.

B) *Drainage system:* The existing drainage network of Lakhipur town is mostly earthen in nature and needs proper improvement in near future because of the population growth and changes in the physical environment. The implementation of a Storm Water Drainage project under the scheme UIDSSMT had been implemented in the recent past.

However considering the storm water drainage facility for total master plan area, a 2nd phase of the drainage project has been proposed in utility map (storm water drainage) of this master plan. Since, UIDSSMT has already been withdrawn by the central government, so a DPR under new physical project mission like AMRUT may be prepared and submitted to the government by the implementing agency.

C) *Sanitation:* All aspects related to sanitation in urban areas are now being taken care of under Swachh Bharat Mission. Both ULB and PHE department have been engaged in day to day activities and programme under Swachh Bharat Mission. As per data provided by PHE, 4099 nos. of low cost sanitary facility is provided within proposed master plan area.

D) *Sewerage network:* The town does not have any sewerage system. Households have their own septic tank.

E) *Solid Waste Management:* Current site assessment, land ownership, proposed site: Lakhipur Municipal Board is maintaining a solid waste management wing. The present site of waste dumping yard is the hill-side of Jujhang Hill on the boundary of Lakhipur Master Plan area. It is to be shifted to a permanent dumping ground. A project report on solid waste management of the town needs to be prepared by the Municipal Board to take care of all categories of waste, their disposal and decomposition.

F) *Electric sub-station and major transformers:* There is only one power sub-station within town and proposed Master Plan. Major Transformers are located all across various nodal points in the town depending power demand and distribution. Total demand of power in peak hour is 4.00 MW while supply within the master plan area is 3.70 MW. Irrespective of quantum of demand in future years, the supply is regulated by the norms adopted centrally by APDCL for drawing/ purchasing power from the national power grids.

6.2. Social Infrastructure:

Schools, Colleges, Universities, Hierarchy of hospitals and health centres etc.:

Lakhipur has two numbers of degree level colleges, one higher secondary school, five numbers of high school, five numbers of Middle English school and twelve numbers of Lower Primary school. There are three numbers of private English Medium high school and three numbers of private English Medium primary school in Lakhipur. All together these educational institutions are sufficient for the present population. The number of private colleges will increase in near future. Few private educational institutions along with technical institute like ITI should be set up at Lakhipur for meet the demand.

CHAPTER 7

ENVIRONMENT AND CITY BEAUTIFICATION PLAN

7.1 Description of eco-friendly areas like water bodies, beels, forests and also heritage areas:

There is an eco-friendly water body, located in the revenue village of Chiripar Part I, in the south west boundary of Lakhipur master plan area. It was formerly a part of Barak River. At present, it is a lake with different types of plants at its surrounding and thus it presents a scenic beauty.

7.2. Plan/Measures for protection and conservation of environmentally-friendly zones.

All developmental activity in Eco zones, in the hilly forest and in low lying river bank area have been proposed to be freezed. Restrictive measures on development control have been proposed through imposition of green belt zone. Moreover “**No Construction zone**” has been proclaiming in all areas within 15 meters from any water body, rivers etc in urban area and 50 meters in rural area. In addition existing land uses in the form cultivation has been encouraged, agriculture/ paddy zone has been marked in semi urban areas in this master plan.

7.3. City Beautification Plan/Proposals:

- i. **Roadside plantation:** The road side plantation along edge of the footpath at national highway (NH) and other district roads (ODR) in town area has been proposed. This is to be implemented through Social Forestry Division, Silchar.
- ii. **Urban agriculture and urban forestry:** Both are already in existence and shown in proposed land use map. Urban agriculture has been shown in Agriculture and Paddy zone in Land use map. Similarly urban forestry will be available at proposed Green belt zone and Eco zone in Land use map.

- iii. **Public Rain Water Harvesting Scheme:** In all public building, provision to be checked before according approval to the project.
- iv. **Development of parks and recreational spaces:** Though there are non availability of plain and level ground, even than recreational centres and organized open spaces have been proposed in the land use map.
- v. **Identification and demarcation of multi-purpose open spaces for sports, cultural functions, fairs, circus etc:** The ongoing construction of Recreational centre near Chiripul area will serve the purpose of sports and cultural activities. Open spaces in western part of master plan area will serve the purpose of organizing fair, open assembly of public.
- vi. **Beautification of major transit zones (major junctions, Bus depot, Railway station, market zones etc.):** Renovation and remodelling of both Ferry ghat i.e. one at Fulertal and one at Lakhipur have been proposed for providing better facilities to passengers, goods carrier and traders. The existing bus stand, terminal, proposed bus bays and bus stoppages are to be renovated to cater the future needs and adequate lighting arrangement to be made by urban local body and panchayats in their respective areas.
- vii. **Road signage and street furniture:** Road signage to be provided along national highway at every 500 mts by PWD (NH) division. In other district roads of state PWD, informatory and cautions signage to be erected at appropriate locations.
- The adequately raised footpath (1.5 mts width at NH and 1 mt width at ODR), the street lights and properly laid out road junction with rotary and divider form the important components of street furniture.
- Three number of rotaries at three important road junctions in master plan area has been proposed showing appropriate lay out and dimension. The layouts are shown in proposed circulation map.
- viii. **Zero Point:** Existing Road Level (Altitude) in meters for 07 nos. of major roads of Master Plan area are as follows –

S.NO.	ROAD NAME	LOW ELEVATION (M)	HIGH ELEVATION (M)	ZERO POINT (M)
1	NH37 (CHIRI BRIDGE TO FULERTOL POINT)	23.673	49.889	So zero level is at 23.673, now road level for future is fixed at $(23.673+0.3)=23.973$
2	NH37 (FULERTOL POINT TO NEW DUMPING GROUND)	22.617	144.847	So zero level is at 22.617, now road level for future is fixed at $(22.617+0.3)=22.917$
3	PALLARBOND NUNGPHOW ROAD	21.154	24.4	So zero level is at 21.154, now road level for future is fixed at $(21.154+0.3)=21.454$
4	OLD SILCHAR ROAD (PALLARBOND NUNGPHOW ROAD TO COLLEGE ROAD)	21.457	27.163	So zero level is at 21.457, now road level for future is fixed at $(21.457+0.3)=21.757$
5	OLD SILCHAR ROAD (COLLEGE ROAD TO FULERTOL BRIDGE ROAD)	24.658	25.348	So zero level is at 24.658, now road level for future is fixed at $(24.658+0.3)=24.958$
6	OLD SILCHAR ROAD (FULERTOL BRIDGE ROAD TO FULERTOL POINT)	24.928	25.922	So zero level is at 25.928, now road level for future is fixed at $(24.928+0.3)=25.228$
7	BYPASS ROAD	23.344	26.626	So zero level is at 23.344, now road level for future is fixed at $(23.344+0.3)=23.644$

CHAPTER 8

LAND USE PLAN

8.1 Developable and non-developable area of the Master Plan:

Few high altitude hillocks, river bank prone to soil erosion and high depth water bodies within Master Plan area can be categorized as non-developable area. These areas are to be of restrictive use from the environmental and ecological point of view. All other areas fall under category of Developable area. The possibility of expansion of the town is towards northern direction in first phase and towards east in the subsequent phase. “**No Construction zone**” has been proclaiming in all areas within 15 meters from any water body, rivers etc in urban area and 50 meters in rural area. All other areas fall under category of Developable area. The possibility of expansion of the town is towards northern direction in first phase and towards western in the subsequent phase.

8.2 Existing and Proposed land-use:

The future population and trend of infrastructure development determine the nature of land uses and their proportion in future land use. It has been assumed that there will not be any abrupt changes in any aspect affecting the future population figure in an unprecedented manner. Rather there will be moderate increase in present growth and it will continue for some years in future. The projected population is 66,952 in master plan area. The Master plan or Outline Development plan is prepared to evolve a scientific and rational policy for urban development. The plan guides the future course of development for providing better environment to the people living in a geographical area. The plan period of this Master plan is considered up-to 2041.

The Studies in respect of land use pattern, transportation network, circulation pattern, housing and other activities indicate lack of urban amenities and infrastructure hindering the growth in the other sector. However opportunities in its location in regional set up vis a vis scope for promotion of trade and commerce are to be explored and exploited in positive manner.

- a. **Residential:** A total area of 7.70sqkm has been proposed for residential use. The residential areas are distributed all over the master plan area to have smooth home and place of work relationship. The concentration of population in different areas would vary and accordingly there would be distribution like low, high and medium density zone as shown in chapter 2.
- b. **Commercial:** A total area of 0.65 sqkm has been proposed for commercial use. The dispensing of commercial activities in different nodal centres of the town and as well as along the major road is proposed in this plan. It is proposed to relocate wholesale and godowns in the commercial areas in Fulertal locality. Two Vending Zone site has been proposed namely at Nayagram village near the municipal boundary area and another at Ward No VIII with an area of 7228.31 SqM. (Proposed Land Use Map – 2041)
- c. **Industrial/Manufacturing:** Encouragement for establishment of small industrial units like pine-apple industry etc. based on agricultural products and other small scale industries may be given priority. The surrounding area of Lakhipur is fertile and the town along with its shrubs produces large quantities of pineapples besides rice and other vegetables. Thus, 1.20sqkm area has been proposed for the establishment of various industrial units within the Master Plan Area.
- d. **Public & Semi-public:** A total area of 0.85 sqkm has been proposed for public and semi public use. This category consists of multiple uses like Government and semi Government offices of various education and

health facilities, socio cultural and institutions, places of public uses etc. Provision of keeping well defined areas for Government and public offices, institute etc. in public and semi-public land use in three different locations viz two number at Digar Fulertol pt-1 and one at Lakhipur pt-1. A cremation ground has been proposed with an area of 32246 at Binakandi Part II.

- e. **Green belt:** A total area of 1.51 sqkm has been proposed for green belt use in the proposed map.
- f. **Open space, Parks & Playgrounds (including public grounds for functions, sports, assembly):** In proposed master plan, an area of 1.65sqkm has been earmarked for Recreational area and organized open space. Lakhipur town has one major playground. There is one cinema hall of 450 sitting capacity. There is need for developing recreational facilities, both active and passive within the Master plan area.
- g. **Transport:** Economic and socio cultural life of a geographical area is immensely influenced by regional transport linkage and inner traffic management system (though Lakhipur being a small town, the inner traffic management does not have much implication at present). The growing demand for transportation facilities calls for assessment of the existing problems of traffic movement, circulation pattern, road geometrics. The assessment helps to evolve remedies in terms of short term and long term measure. Lakhipur is connected with other part of the district and state via rail, road and airway though nearest railway station and airport are few kilometres away from the town. The national highway 53 passes through the town connecting Silchar on one side and Manipur on the other side. This NH causes the increase in regional traffic at Fulertal point of the Master plan area. Due to this some parallel roads entering into major residential areas of the town has been suggested.
- h. **Agriculture:** In proposed master plan, an area of 15.13sqkm has been earmarked as Agriculture and Plantation area.
- i. **Special areas (Heritage, Pilgrimage, Notified Archaeological sites (if any):** There is no such feasible site or zone need to be used under this special area.
- j. **Eco-zones:** A total area of 0.29sqkm has been proposed for use as eco-friendly zone. There is an eco-friendly water body, located in the revenue village of Chiripar Part I, in the south west boundary of Lakhipur master plan area.
- k. **Water bodies:** There is an eco-friendly water body, located in the revenue village of Chiripar Part I, in the south west boundary of Lakhipur master plan area.

Existing Land use - 2022.

Sl.No.	Land Use Category	Area (sq km)	Percentage of Total Area
1	Residential	6.9	18.14
2	Commercial	0.27	0.71

3	Industrial	0.06	0.15
4	Public and Semi-Public	0.34	0.89
5	Recreational centre/ Playground	0.02	0.05
6	Transport	0.43	1.13
Total Developed Area		8.01	21.05
7	Forest	4.22	11.09
8	Open Space	0.18	0.47
9	Agriculture	22.06	57.99
10	Waterbody	3.57	9.38
Total Non developed Area		30.03	78.95
Total Master Plan Area		38.04	100

Proposed Land -2041 use Table

Land Use Category	Area in Sq Km	% of Developed Area	% of Planning Area
Residential	7.7	57.24	20.24
Commercial	0.65	4.83	1.70
Industrial	1.2	8.92	3.15
Public - Semi Public	0.85	6.31	2.23
Open Space/ Recreational Space	1.65	12.26	4.33
Transport	1.3	9.66	3.41
Mix Use	0.1	0.7	0.26
Total Developed Area	13.45	100	
Agriculture	15.13	-	39.77
Water body	3.57	-	9.38
Green Belt	1.51	-	3.96
Eco-Zone	0.29	-	0.76
Forest	4.22	-	11.09
Total Master Plan Area	38.04	100	100

8.3 Composite zones or mixed zones:

Residential zones and Commercial zones are allowed for mixed use zones, however only general and retail commercial will be in combination with residential use. The restriction/relaxation in different parameters will be as elaborated in Sec. 74.2 of Assam Notified Urban Areas (other than Guwahati) Building Rules, 2014.

8.4 Zoning Regulations:

Uniform Zoning Regulations 2000 for all towns of Assam in combination with the Assam Unified Building Construction (Regulation) Byelaws 2022 will take care of all aspects of zoning regulations, development control and according land sale and building construction permission by the enforcing authority of this

master plan. The Proposed Zoning map of this Master Plan will have to be read and referred while enforcing the zoning regulations.

8.5 Town Planning Scheme (TPS) & Local Area Planning (LAP):

Town Planning Scheme is a development scheme where the irregular lands are taken from owners and the land is developed with regular plots, well connecting roads, parks and open spaces. Developed plots are redistributed to the land owners in proportion to their share of land contributed for development. The plots which the owners get will be less in area than they had contributed as the land will be used for roads and open spaces also. Here no compensation is given to the owner; instead they will be given developed land which will be having high value than the previous undeveloped land.

For the said purpose, there are two TPS has been proposed in the Master Plan in the village of Niz Lakhipur Part III and Lalang Part II & III. The total area of the two TPS is 142.74 hectares.

A local area plan (LAP) sets out a strategy for the proper planning and sustainable development of a specific area within a local authority and for a timescale as specified by the authority. The LAP has been proposed at Ward No II & III combined.

CHAPTER 9 **PROPOSED PROJECT'S BRIEF AND TENTATIVE FUNDING SOURCE**

9.1 Based on existing conditions and projected requirements of the planning area, identifying priority sectors and projects:

Based on the analysis of the existing scenario of infrastructures in project area, following are the identified priority sectors-----

1. Solid waste Management project
2. Water supply project
3. Storm water drainage project

9.2 Fund required for each sector/project identified under the sectors:

A. Probable cost of Integrated Solid Waste Management for Lakhipur Municipal Board:

Integrated Solid Waste Management (ISWM) is a system which defines a hierarchy while managing solid waste. According to the ISWM, solid waste must be managed in the following hierarchy with the first strategy being most desirable and the succeeding strategies to be followed depending quantity and category of waste. The site of SWM has been proposed in this Master Plan at

village Digar Fulertal Pt.III. The earmarked area is approx 20000 Sq.mts, shown in utility map. In addition to this site, another site for SWM has been proposed at Lalangkitta Labakpar Part-V with approx area of 10000 sq meters.

- **Reduction at source and reuse:** The most logical and preferred option is minimizing the waste production. This can be done by using better technologies, efficient packaging, reusing the waste produced at each level in some other process or activity.
- **Recycling:** Recovery of material from the waste and reusing it again in manufacturing of some other product is recycling. Although recycling helps in recovering the material waste, energy is used in the process.
- **Waste to Compost:** Decomposition of organic municipal waste to produce manure.
- **Waste-to-Energy:** Production of heat, electricity or fuel from the waste using biomethanation, waste incineration or Refuse Derived Fuel (RDF).
- **Waste Disposal:** Inert waste or the residual waste produced in the other waste management process must be disposed in engineered landfills.

Another aspect of ISWM is the integration of informal sector, to include rag pickers and private door-to-door waste collectors. The informal waste sector plays an important role in waste collection and segregation and this is done at a minimal cost.

Considering all options for a modern Solid Waste Management project like vermicomposting, digestion, incineration, gas and electricity product, residual land fill provision etc, the cost per person is derived from similar DPR of different town (Panaji, NOIDA) etc). It is per person capital expenditure is calculated Rs. 708.25/Persons. Taking into consideration the projected population up to 2041 probable cost for managing solid waste is calculated as below.

Therefore for population of 66952 (projected upto 2041) = Rs.708.25 x 66,952 = Rs. 4,74,18,754/- (Rupees Four crore Seventy four lakhs eighteen thousand seven hundred fifty four)

The per capita annual operation and maintenance cost is Rs. 155/-

Therefore for population of 66,952 (projected upto 2041) = Rs.155 x 66,952 = Rs.10,377,560 /- (Rupees one crore thirty seven lakhs seven thousand five hundred sixty) only.

B. Probable cost of Water Supply schemes for Lakhipur Municipal Board: The following brief project proposal may be prepared on the basis PHE Assam guidelines.

Considering estimate population of master plan area in 2031 is 58606 and the cost of commissioning the water supply project by 2024-25 is rupees Rs. 9737.88 per person. Then after 10 years, the projected population in 2041 is 66,952. Then the cost of improvement of that project is Rs. 8322.92 per person. The different components of the project are as follows-

1. Raw water intake system.
2. Raw Water Pumping Machinery and other accessories
3. Raw Water Converging Main
4. Water Treatment Plant
5. Clear Water Pumping System
6. Clear Water converging main
7. Elevated service reservoir.
8. Distribution System
9. Water Meter with 5 year maintenance contact.
10. Auto Control System.

Accordingly total project of water supply augmentation within Lakhimpur Master Plan Area will be:

$$=(58,606 \times \text{Rs. } 9737.88) + (66952 \times 8322.92) = \text{Rs. } 1127934335$$

(In Words Rupees One Hundred Twelve Crores Seventy nine Lakhs Thirty four thousand three hundred thirty five only.)

C. Probable cost of Storm water drainage schemes for Lakhimpur Municipal Board:

Taking into consideration the present prevailing market rate of the construction materials and labour and ongoing drainage scheme as per PWD (Rural) Road Schedule 2020-21), the approximate amount required to cover a length of 89 km with drainage facility is calculated as follows.

Total cost for per metre length of the drain = Rs.13,900/

Total approximate cost required to complete drain for a length of 89 km is = Rs.13900 x 89000 m = Rs.1237100000 /only (Rupees One Hundred twenty three crores & seventy one lakhs) only.

9.3 Identification of land site of proposals- In case of Government land, inventory of Municipal land, State Govt./Govt. agency owned land etc and plan for acquiring/leasing the same:

There is no availability of municipal land at Lakhimpur. The undulated hilly government land is available at Lalangkitta Labakpar Part-V, Digar Fulertal-I, Digar Fulertal -II and Mhwarkuilen locality and towards Jiribum Road in the left part of national highway. Few stretches of Government land are also available at Chiripar Pt I. Initially after providing appropriate drainage provision from hillocks to natural drains in plain area, the plain land to be

utilised without going for hill cutting. Rampant hill cutting should not be encouraged for utilising land for infrastructure development.

9.4 Indicative sources of fund-Specific Central scheme funds (10%, NLCPR, AMRUT, Infrastructure Dev. Fund, Entry Tax etc) Assam Finance Commission funds, CM's Special Package, Public Private Participation, Loan from externally aided project (JICA, World Bank, ADB etc):

At present following schemes are applicable for small town like Lakhimpur--- 10% Pool Fund, NLCPR, Infrastructure Development Fund, Entry Tax, Assam Finance Commission etc. So above mentioned three projects can be funded from such centrally or state sponsored scheme.

CHAPTER 10 **DISASTER PLAN**

10.1 Flood/Urban Flood:

District Disaster Management Plan for Cachar district has already been prepared and it takes care of urban water logging and flood including Lakhimpur town and surrounding areas.

10.2 Earthquake: Details Plan has been indicated in District Disaster Management plan.

10.3 Others: Details Plan has been indicated in District Disaster Management plan.

Disaster Management Plan pronounces in the clearest terms that the process of adaptation & change to manage disasters has to have several dimensions, Prevention, Mitigation, Response, Relief, Recovery & Rehabilitation.

It recognizes that disaster management has to be a collective & multi-sectoral effort.

It makes it clear that the process of adaptation & change can no longer be an optional one and every agency of Government must account for what it did or failed to do.

Each of these phases involve different aims & objectives, they may overlap depending on the nature of the disaster. However, the overall objectives are the same. The aim of any disaster management programme is to reduce the impact of a disaster on human life and property. The aim of plan is to ensure that all components of disaster management are addressed to facilitate planning, preparedness, operational, co-ordination and community participation.

- To assess vulnerability of the departmental assets / works created with the help of ULBs of the district to different disaster.
- To generate preparedness plan for fighting against different disaster.
- To train up departmental personnel for providing emergency response services during disaster.
- To keep co-ordination with DDMA & other authorities.
- Sensitization for community participation.

Type of Hazards	Jan	Feb	Mar	April	May	June	July	August	Sep	Oct	Nov	Dec
Flood				←————→								
Earth Quake	←————→											→
Landslide				←————→								
Storm			←————→									
Fire Accident	←————→											→
River Erosion				←————→								
Industrial Hazard	←————→											→
Bomb Blast	←————→											→
Road Accident	←————→											→

Disaster Probability: - The probable period of occurrence & damages from major causes of hazard in this region.

Sl. No.	Type of Hazards / Disaster	Time of Occurrence	Potential Impact / Probable Damage	Vulnerable Areas
1.	Flood	April – September	Damage of Roads & Drains, lives & properties.	Within Master Plan area of the town
2.	Earthquake	January – December	Loss of life, infrastructure, constructed structure, public & private building.	Within Master Plan area of the town
3.	River Erosion	April to September	Loss of Public/Private Property.	Within Master Plan area of the town
4.	Storm	April to September	Loss of Public/Private Property.	Within Master Plan area of the town

Risk Assessment: - Two major hazard may be considered for risk assessment in this region.

Type of Hazard	Potential Impact	Vulnerability	Vulnerable Area
Flood/Urban flood	Damage of Roads & Drains.	i) Siltation of drainage channel	All towns and surrounding Master Plan area in the district.
		ii) Temporary Water logging of reclaimed area	In Lakhipur town w/no.2 & 3 are mostly affected causing damages to residential areas. At Fulertal point on National Highway is affected by urban flood.

Earth Quake	Loss of lives & properties	i) Infrastructure which are not earthquake resistant (Assessment may be needed)	Damage of public & private building in towns and their surroundings. Mostly old & dilapidated buildings are likely to be affected.
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10.4 Standard Operational Process (SOP) on Disaster:

Pre-disaster, During and Post disaster: SOP under district Town and Country Planning office has been prepared which is also applicable for Lakhimpur Master Plan area.

Departmental Standard Operating Procedures (SOPs): SOPs describe the regularly recurring work processes that are to be conducted or followed within an organization.

Standard Operating Procedure (SOP) of Town and Country Planning Office, Silchar: The Nodal officer is the first person to initiate action & put the SOP of the Department into ground reality.

The Nodal Officer will co-ordinate with DDMC and DDMA in the event of any disaster. It is the responsibility of the Nodal officer & his team to coordinate & keep liasoning with subordinate agencies & higher level agencies.

All other activities in field level are co-ordinated by the officers in charge of Rescue team and First Aid/Medical Team as formed at Chapter 4. All actions are duly endorsed by the Head of Office (Deputy Director). The various components of SOPs have been incorporated & integrated in the different chapters of this plan in appropriate paras & points.

